DIGITAL SIGNAL PROCESSOR HAVING A
PLURALITY OF INDEPENDENT DEDICATED PROCESSORS

Abstract of the Disclosure

A digital signal processor uses a number of independent sub-processors that may be controlled by a master programmable controller. For example, a specialized input processor may process input signals while a specialized output

5   processor may process output signals. Each of these processors may also accomplish math functions when input and output processing is not necessary. The various processors may communicate with one another through general purpose registers which receive data and provide data to any of the processors in the system. Math processors may be added as needed to accomplish desired

10   mathematical functions. In addition, a RAM processor may be utilized to hold the results of intermediate calculations in one embodiment of the present invention. In this way, an adaptable and scaleable design may be implemented that accommodates a variety of different operations without requiring redesign of all the components.